



IMPACT OF COMPUTER AIDED TEACHING IN DEVELOPING ATTITUDE AND PROGRAMMING SKILLS OF STUDENTS AT HIGHER SECONDARY LEVEL

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ABSTRACT

The study investigated "Impact Of Computer Aided Teaching In Developing Attitude And Programming Skills Of Students At Higher Secondary Level". The objective of the study is to find out the impact of computer aided teaching among the Higher Secondary Level.

This study investigates the Computer Aided teaching using in tertiary institutions. In institutions of higher education, the issue of utilizing modern information and communication technologies for teaching and learning is very important. This study reviews literature and gives a scholarly background to the study by reviewing some contributions made by various researchers and institutions on the concept of Computer Aided Teaching, particularly its usage in teaching and learning in higher educational institutions. It unveils some views that people and institutions have shared globally on the adoption and integration of Computer Aided Teaching in developing education through surveys and other observations. This paper tells us about what is Computer Aided Teaching, what is its impact on employee and student performance, what is its history, difference between Computer aided teaching and traditional learning, future of Computer aided teaching and some facts about Computer aided teaching that are collected from various websites of Internet are also included in this paper, fact show that it is growing in recent years.

A sample of 40 students from 2 higher secondary level were selected in Perambalur district for this research work using the random sampling techniques. The investigator collected the reviews that are conducted in India and in abroad.

The tool for "Impact of Computer Aided Teaching" was prepared by the investigator under the two categories "Attitude" and "Programming Skills". Each item consists of 20 questions. The research findings show that the level of Impact of computer aided teaching among the Higher Secondary Level was high when compared with conventional talk and chalk method.

KEYWORDS: Impact, Attitude, Programming Skills, Technology in Education, Computer Aided Teaching, Conventional method.

INTRODUCTION:

Computer aided education eases the process of learning. Life without computers would seem almost unimaginable for many individual using computers daily. Computer aided education (CAE) is not a new fact. In the early 1960s, Stanford University psychology professors Patrick Suppes and Richard C. Atkinson experimented with using computers to teach math and reading to young children in elementary schools in East Palo Alto, California. In 1963, Bernard Luskin installed the first computer in a community college for instruction, working with Stanford and others, developed computer-assisted instruction (Wikipedia). Usage of computer in data communication has commenced in 15th Century. Most of the individuals in 15th Century were extremely ignorant. Computer aided education eases the process of learning. A life without computers would seem almost unimaginable for many individual using computers daily. Traditional teaching methods and course contents have all been affected by the introduction of computer technology.

Traditional teaching methods and course contents have all been affected by the introduction of computer technology. Education is the main step of all disciplines and should be carried out seriously. In our competing world every individual should learn more and fast in order to take a front row in this competition. It is very well known that learning gets easier if the information could be given by a combination of different sources at the same time as sound, picture and words. It starts with the alphabet only with letters and letters with pictures. It is obvious that if it is possible to teach letters with motion and sound concomitantly, it will be easier to learn. Beside this teaching advantage it will bring another differentiation that is willingness to learn. Regardless which theory we believe, computer aided education is of importance for sure.

Quality of education in schools to great extent depends on ability and motivation and involvement of the teachers, infrastructure and effective school administration.

Need of the Study:

In the present digital era, the development in various aspects of computer technology has reached beyond our imagination and expectations. Even though computer has lot of applications in various field, one should not forget its application in the field of education. It is very useful and helpful in teaching and learning process. They have capability of multiplying the human intellect beyond part conceptions and have tremendous implications for education. E-Learning plays a very important role in making education really interesting.

In this 21st century, there is a fast changing in the classroom interaction. Due to internet, a new direction is shown to the education field. Keeping these things in

mind, the investigator of the present study would like to frame a study on the effectiveness of Computer aided teaching modules in teaching learning process.

Scope of the Study:

The main scope is finding the effectiveness of Computer Aided Teaching in developing computer science among higher secondary level. The investigator hopes that the findings of this will provide certain concrete suggestions to the students about Computer Aided Teaching. It is also concerned with the quality of education.

Objectives:

1. To find out the significant difference between the mean scores of Experimental group which is exposed to the developed Computer Aided Teaching methods and control group which is taught through the conventional talk & chalk method for XI standard students in their pre test for attitude in computer science.
2. To find out the significant difference between the mean scores of Experimental group which is exposed to the developed Computer Aided Teaching method and control group which is taught through the conventional talk & chalk method for XI standard students in their pre test for programming skills in computer science.
3. To find out the significant difference between the mean scores of Experimental group which is exposed to the developed Computer Aided Teaching methods and control group which is taught through the conventional talk & chalk method for XI standard students in their post test for attitude in computer science.
4. To find out the significant difference between the mean scores of Experimental group which is exposed to the developed Computer Aided Teaching methods and control group which is taught through the conventional talk & chalk method for XI standard students in their post test for programming skills in computer science.
5. To find out signification correlation between the post-test scores in attitude and programming skills which are exposed to the developed Computer aided teaching methods.

Hypotheses:

1. There is no significant difference between the mean scores of Experimental group which is exposed to the developed Computer aided teaching method and control group which is taught through the conventional talk & chalk

method for XI standard students in their pre test for attitude in computer science.

- There is no significant difference between the mean scores of Experimental group which is exposed to the developed Computer aided teaching methods and control group which is taught through the conventional talk & chalk method for XI standard students in their pre test for programming skills in computer science.
- There is no significant difference between the mean scores of Experimental group which is exposed to the developed Computer and aided teaching methods and control group which is taught through the conventional talk & chalk method for XI standard students in their post test for attitude in computer science.
- There is no significant difference between the mean scores of Experimental group which is exposed to the developed Computer aided teaching methods and control group which is taught through the conventional talk & chalk method for XI standard students in their post test for programming skills in computer science.
- There is no significant correlation between the post-test scores in attitude and programming skills which are exposed to the developed Computer aided teaching methods.

Sample:

According to GOODE & HAT (1952) "A sample is smaller representation of the larger whole". In the present study 40 higher secondary school students have been selected as sample.

Statistical Techniques Used:

Suitable statistical techniques were used in the interpretation of the data to test various hypotheses such as mean, Pooled Standard deviation, t-values and correlation analysis.

Limitations of the Study:

- The study is limited to Perambalur district only.
- Limited variables were assumed for this investigation.
- Sample size confined to 40 higher secondary school students.

RESULT AND DISCUSSION:

Table 1

The mean, S.D, 't' value of Experimental group which is exposed to the developed Computer aided teaching methods and control group which is taught through the conventional talk & chalk method for XI standard students for attitude and programming skills in computer science.

| Variables | Group | N | Mean | SD | 't' Value |
|--------------------|------------------------------|----|------|------|-----------|
| Attitude | Pre-test Experimental Group | 20 | 5.45 | 2.32 | 0.60* |
| | Pre-test Control Group | 20 | 5.15 | 1.75 | |
| | Post-test Experimental Group | 20 | 12.7 | 1.83 | 8.93 |
| | Post-test Control Group | 20 | 6.45 | 1.63 | |
| Programming skills | Pre-test Experimental Group | 20 | 5.1 | 1.83 | 0.34* |
| | Pre-test Control Group | 20 | 4.65 | 1.53 | |
| | Post-test Experimental Group | 20 | 14.1 | 2.29 | 6.21 |
| | Post-test Control Group | 20 | 7.7 | 1.65 | |

*Not significant at 0.05 level.

The Mean, SD, t-values of attitude and programming skills were tabulated in table 1. The pre test scores of attitude and programming skills are not significant. Hence the null hypotheses framed on these variables are accepted. The post test scores of attitude and programming skills are significant. Hence the null hypotheses framed on these variables are not accepted.

Table 2

Relationship between Attitude and Programming Skills

| Variables | N | 'r' | p value |
|--------------------|----|------|---------|
| Attitude | 20 | 1.41 | 0.26 |
| Programming skills | 20 | | |

Significant at 0.05 level

The calculated value of 'r' 0.418 is more than the table value of 'p' 0.26 at 0.05 level of significance. Since the 'r' value is moderate, it is concluded that there is a moderate relationship between the post-test scores in attitude and programming skills which are exposed to the developed Computer aided teaching method.

CONCLUSION:

An attempt has been made find out the effectiveness of Computer aided teaching on attitude and programming skills in computer science of higher secondary school students and it was found to be overall effective than the conventional talk and chalk method.

- The pre test scores of attitude and programming skills are not significant.
- The post test scores of attitude and programming skills are significant.
- There is a moderate relationship between the post-test scores in attitude and programming skills which are exposed to the developed Computer aided teaching modules.

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